

AMENDMENTS TO CLAIMS

- Please delete claims 4, 9, 14, and 19.
- Please amend pending claims 1, 6, 11, and 16 as indicated below. A complete listing of all claims and their status in the application are as follows:

1. (currently amended) A method for analyzing a semiconductor device comprising:

testing a semiconductor device to produce first data and second data; data wherein the first data is selected from a group consisting of IV curves and V_t distributions;
applying a clustering method to the first data to create a clustered first data; and
correlating the clustered first data with the second data to determine analyzed data.

2. (original) The method of claim 1 wherein the clustering method is spatial signature analysis.

3. (original) The method of claim 1 wherein the clustering method is K-means clustering.

4. (canceled)

5. (original) The method of claim 1 wherein the analyzed data is selected from a group consisting of wafer mapping, commonality, or correlation.

6. (currently amended) A method for analyzing a semiconductor device comprising:

testing a semiconductor device to produce physical data and electrical data; data wherein the produced data is selected from a group consisting of IV curves and V_t distributions;

applying a clustering method to the electrical data to create clustered electrical data;
and

correclating the clustered eletrical data with the physical data to determine analyzed data.

7. (original) The method of claim 6 wherein the clustering method is spatial signature analysis.

8. (original) The method of claim 6 wherein the clustering method is K-means clustering.

9. (canceled)

10. (original) The method of claim 6 wherein the analyzed data is selected from a group consisting of wafer mapping, commonality, or correlation.

11. (currently amended) Apparatus for analyzing a semiconductor device, comprising:

circuity for testing a semiconductor device, to produce first data and second data; data wherein the first data is selected from a group consisting of IV curves and V_t distributions;

circuity for applying a clustering method to the first data to create a clustered first data; and

circuity for correlating the clustered first data with the second data to determine analyzed data.

12. (original) The apparatus of claim 11 wherein the clustering method is spatial signature analysis.

13. (original) The apparatus of claim 11 wherein the clustering method is K-means clustering.

14. (canceled)

15. (original) The apparatus of claim 11 wherein the analyzed data is selected from a group consisting of wafer mapping, commonality, or correlation.

16. (currently amended) Apparatus for analyzing a semiconductor device, comprising:

circuity for testing a semiconductor device to produce physical data and electrical data; data wherein the produced data is selected from a group consisting of IV curves and V_t distributions;

circuity for applying a clustering method to the electrical data to create clustered electrical data; and

circuity for correclating the clustered eletrical data with the physical data to determine analyzed data.

17. (original) The apparatus of claim 16 wherein the clustering method is spatial signature analysis.

18. (original) The apparatus of claim 16 wherein the clustering method is K-means clustering.

19. (canceled)

20. (original) The apparatus of claim 16 wherein the analyzed data is selected from a group consisting of wafer mapping, commonality, or correlation.